

Mathematics Statement of Intent.

Intent

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

At Ormiston Herman Academy the intention for the Mathematics curriculum is that it provides children with enriching learning opportunities to develop mathematical thinking and understanding. We expect children to be able to confidently recall knowledge and thus apply to varying contexts, consequently demonstrating that they 'know more and can remember more'. The mapping of Mathematics across the Academy shows clear progression of mathematical concepts and is in line with age related expectations. Children at Ormiston Herman Academy have access to the same curriculum content, as we recognise that all should have the potential to succeed. Our curriculum enables children to think mathematically whilst being appropriately challenged to further deepen understanding.

Implementation

The Maths curriculum at Ormiston Herman Academy ensures students become fluent in the fundamentals of mathematics, whilst developing their conceptual understanding. The pedagogy of our maths curriculum enables children to develop as mathematical thinkers through a collaborative approach to learning.

Planning

In order to successfully implement the mathematics curriculum at Ormiston Herman Academy, we have a structured Calculations Policy which is in line with the National Curriculum expectations. Teachers in Years 1-6 are providing frequent opportunities for children to be

developing the ability to recall and apply the fundamental skills in Mathematics taken from the National Curriculum (Just Know Its document).

Long term: National Curriculum

2. Medium term: Yearly overview, up-dated annually in response to data and in house monitoring of teaching & learning.

3. Short term: -

- Daily lessons include a clear learning outcome 'TBAT'.
- Daily lessons are taught to allow time for children to work collaboratively to deepen and share their understanding: recap prior learning (3 in 3), Blue/Green (collaborative learning through application and discussion), main part of the lesson (developing fluency and conceptual fluency) and opportunities to access deeper level thinking problems.
- Teachers use 'NCTEM- Maths Mastery booklets'

Quality first teaching

- Planning should be rooted in providing opportunities for collaborative learning
- Lessons must provide support and challenge which deepens thinking for every child
- Teachers must facilitate opportunities for children to access Greater Depth mathematical thinking
- Rapid recall of mathematical facts including times tables is essential and must be taught daily (rigorously and systematically)
- Children must be taught to talk about their mental processing and written methods using appropriate language
- Teaching should be rooted in providing clear links across concrete, pictorial and abstract
- Teachers must rigorously assess and therefore this should inform the triangulation of, planning, teaching and assessing

Quality first learning

- Children must be taught to record independently and the outcomes inform teacher assessment. Children should have, alongside concrete materials and creating pictorial representations, the opportunity to use formal abstract methods
- Children should be inquisitive and resilient learners and subsequently confident to solve Greater Depth learning challenges
- Children should apply key skills in daily practice

- Children should be confident to independently access learning.

Standardisation meetings are carried out, alongside termly internal and external moderation sessions.

Impact

- Children will be able to draw upon the fundamentals of mathematics, to support rapid recall and accuracy when applying to complex problems.
- Children will be able to think mathematically and have the flexibility and fluidity to move between different contexts, therefore developing conceptual fluency.
- Children will have the ability to recognise relationships and make connections in mathematics.

At Ormiston Herman Academy, we believe that a mathematical skill or concept has been mastered when a child is able to use their understanding and apply this in unfamiliar situations, whilst using the appropriate vocabulary to verbalise and justify reasoning.